

WHAT IS CLAIMED IS:

1 1. An add/drop cross connection apparatus connected between east and west aggregate
2 units of a synchronous digital hierarchy system, comprising:

3 an aggregate unit matching device for providing matching with the aggregate units;

4 a higher order path connection circuit for subjecting received higher order path data to cross
5 connection by space switching;

6 a lower order path connection circuit for subjecting received lower order path data to cross
7 connection by space switching; and

8 a selector for selectively delivering the data supplied from said aggregate units, higher order
9 tributary device, and lower order tributary device, wherein said selector delivers said data to said
10 higher order path connection circuit or lower order path connection circuit according as said data is
11 the higher or lower order path data.

1 2. The add/drop cross connection apparatus as set forth in claim 1, wherein said higher
2 order path connection circuit is constructed in the same module with said selector.

1 3. An add/drop cross connection apparatus having multiplex section adaptation circuits
2 for matching high order path data to a system clock, high order path overhead monitor circuits for
3 monitoring higher order path overheads of data respectively supplied from the east and west
4 aggregate units and high order unequipped generators for generating unequipped signals and

5 transferring data to the east and west units, said add/drop cross connection apparatus being connected
6 between east and west aggregate units of a synchronous digital hierarchy system, said add/drop cross
7 connection apparatus comprising:

8 a higher order path connection circuit for subjecting received higher order path data to cross
9 connection by space switching;

10 a lower order path connection circuit for subjecting received lower order path data to cross
11 connection by space switching; and

12 a selector connected via a single path to a higher order tributary device and a lower order
13 tributary device, wherein said selector selectively delivers higher order path data from said higher
14 order tributary device to said higher order path connection circuit and selectively delivers lower order
15 path data from said lower order tributary device to said lower order path connection circuit based on
16 whether said data is higher order path data or lower order path data.

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18 4. The add/drop cross connection apparatus as set forth in claim 3, wherein said selector
19 receives data from one of said east and west aggregate units via said higher order path connection
20 circuit and selectively provides the received data to said higher order tributary device when said
21 received data is higher order path data and selectively provides the received data to said lower order
22 tributary device via said lower order path connection circuit when said received data is lower order
23 path data.